



Figure 1. Nettle caterpillar

Introduction. Specimens of a stinging nettle caterpillar were first found infesting rhaps palm at a nursery in Panaewa on the Big Island in September 2001. They were tentatively identified as *Darna pallivitta* Moore by D. Tsuda, University of Hawaii (UH) Insect Diagnostic Clinic, and B. Kumashiro, Hawaii Department of Agriculture (HDOA) and confirmed by Dr. M. Epstein formerly with the Smithsonian Institution. This species occurs in Southeast Asia and is known to feed on palms (coconut and areca) and grasses (Cock et al. 1987).

Description. Nettle caterpillars grow to a maximum length of one inch and are covered with spines (Figure 1). A dark longitudinal stripe runs down the back of each caterpillar. The brownish cocoon is round and surrounded by a netting of silk (Figure 2). The adult moth is brown and is one-half inch in length (Figure 3).

Distribution. On the east side of the Big Island, the nettle caterpillar has been found as far north as Papaikou (Hilo District), west to Mountain View and south to Hawaiian Beaches (Puna District). The spread of the nettle caterpillar from the original Panaewa infestation may be due to

Nettle Caterpillar

Darna pallivitta Moore

(Lepidoptera: Limacodidae)

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natural dispersal or movement of infested plants. In 2006, isolated infestations of nettle caterpillar were found at Keahole and Hualalai (Kona District). In February 2007, an infestation was found at Kohala (Kohala District). These infestations in the west and north sides of the Big Island are likely due to movement of plants infested with nettle caterpillar. In June 2007, the nettle caterpillar was found at a nursery in central Oahu. This infestation was most likely due to the importation of plants from the Big Island. Efforts to control the nettle caterpillar on Oahu are being undertaken by nursery personnel, HDOA, Oahu Invasive Species Committee (OISC), and the State Department of Land and Natural Resources (DLNR). Collaborative activities include the applications of insecticides to control caterpillars, intensive hand-removal of cocoons, and the use of electric bug-zappers to eliminate adult moths.



Figure 2. Nettle caterpillar, larva (left) and cocoon (right).

Figure 3. Nettle caterpillar adult.

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Damage. The caterpillars have been found feeding on over 45 species of plants in 22 families including Agavaceae, Apocynaceae, Arecaceae, Bromeliaceae, Caryophyllaceae, Commelinaceae, Costaceae, Euphorbiaceae, Fabaceae, Hypoxidaceae, Iridaceae, Liliaceae, Melastomataceae, Musaceae, Myrtaceae, Oxalidaceae, Poaceae, Polypodiaceae, Rubiaceae, Urticaceae, and Zingiberaceae. However, they appear to prefer monocots over dicots. Feeding by the caterpillars (Figure 1) results in heavily damaged leaves. Fecal pellets on the leaves are indications that the caterpillar is present. Some of the common preferred host plants of the nettle caterpillar in Hawaii include palms, various grasses, ti leaf, iris, and most lilies, including mondo grass (lily turf).

Health concern. In addition to causing plant damage, the caterpillars are a health concern due to the stinging spines which cause burning and itching sensations to the skin. Noticeable swelling may occur and welts or blisters may form that can last for several days, followed by a persistent rash lasting for weeks. If there are any severe symptoms such as difficulty in breathing, seek medical help immediately. To avoid incidents of stinging, do not touch host plants, especially during the summer months, and keep them trimmed back or remove them completely.

Biological Control. In a joint project between the UH College of Tropical Agriculture and Human Resources (CTAHR) and the HDOA, exploration for natural enemies to control the nettle caterpillar was undertaken. In October 2004, a beneficial parasitic wasp that attacks the caterpillar stage of the nettle caterpillar was collected in Taiwan by former HDOA Plant Pest Control Branch Chief L. Nakahara. Host specificity testing in the HDOA Quarantine Facility is nearing completion.

Sightings. Encounters with the nettle caterpillar should be reported to the HDOA's toll-free Pest Hotline at 643-PEST (7378).

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